

## **2010 GEORGIA SKILLS USA COMPETITION RESIDENTIAL PLUMBING CONTEST**

***READ ALL INSTRUCTIONS BEFORE BEGINNING WORK!!***

### **Purpose**

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of residential plumbing.

This contest will consist of four components.

1. Practical Project for 50% of total score.
2. Written Exam for 25% of total score.
3. Calculating and joining a 45° offset for 15% of total score.
4. Generating an Isometric Drawing for 10% of total score.

Practical project will consist of rough-in DWV for a Laundry tray, and Washing machine box. DWV rough-in will be dry fitted for the practical project. Rough-in cold water distribution and supply for Laundry tray, and Washing machine box. Set and trim Laundry tray with p-trap, faucet, and cold water hook up.

Written exam will consist of fifty (50) questions from NCCER Core Curriculum, and plumbing modules.

Calculating an offset will consist of calculating the offset between two pipes, and calculating the run for a 45° offset. Joining will consist of proper cutting, cleaning and gluing PVC pipe and fittings for the offset.

Generating an Isometric Drawing will consist of generating the isometric drawing of the practical project on isometric graph paper provided by the contest.

The competition will begin with a five minute safety stand down for all contestants.

Use the attached drawings to determine the proper location of the washing machine box and utility sink drains and water supply. For this exercise consider the face of the stud wall to be tile finished wall (FW) & the plywood deck to be the finished floor (FF).

The fall on the drainage piping should be  $\frac{1}{4}$ " per foot. Do not drill new holes in the platform. Align vertical pipes with the back of the platform.

You will be called one at a time to participate in the offset gluing portion if the competition.

You may provide a cordless screw gun for this contest. You must provide your own hand tools. The contest will provide a torch and tank. If you need to borrow a necessary hand tool from the contest chair, there will be a 2 point penalty per tool.

Once you have completed the practical portion of the competition please generate the isometric drawing. There will not be specific time set aside for the isometric drawing portion of the competition.

When you have completed your project, notify a judge. **DO NOT LEAVE THE AREA** until the judges have scored your project.

Please do not interact with any of the bystanders or other contestants. If you have any questions or other needs, ask a judge or the contest chair.

**9:00am to 1:00pm**

**You will have from to complete the contest.**

**Do all you can in a professional manner. Try to finish all the tasks.**

**1:00pm to 2:00pm.**

**The written exam portion of the competition will be from**

**2:00pm to 3:00pm**

**When your project has been scored, please dismantle it and return all parts to their boxes.**

**Good Luck**

## 2010 Georgia SKILLS USA

Below is a list of Equipment and Materials needed for Plumbing:

1. **Supplied by the Plumbing Contest committee:**
  - a. All necessary fittings, supplies and fixtures required for the project. A contestant material list is included with these instructions. Check that the materials listed are in place on the contest platform.
  - b. Necessary information and furnishings for judges.
  - c. Tank and tips will be provided for soldering.
  
2. **Supplied by the contestant:**
  - a. Safety Glasses
  - b. 8' steel tape measure
  - c. Copper tubing cutter with reamer
  - d. Striker
  - e. Slip-joint pliers (channel lock type)
  - f. 8" or 10" adjustable wrench
  - g. Set of assorted slotted and Phillips screwdrivers
  - h. Torpedo level
  - i. 16 oz. claw hammer
  - j. Plastic (P.V.C.) pipe reamer or suitable knife
  - k. Suitable saw or shear to cut P.V.C. pipe (up to 3" pipe)
  - l. Small can solder flux or paste, ½ lb. roll solder and solder paste brush
  - m. Copper cleaning tool (inside and outside)( ½" and ¾")
  - n. Roll of plumbers' emery cloth
  - o. 2H pencil and eraser
  - p. 12" straightedge or drafting triangle
  - q. Straight tin snips
  - r. 5/16" nut driver
  - s. Hacksaw
  - t. 3/8" drive socket set
  - u. Portable battery screw gun( optional)
  - v. Plumb bob
  
3. **Prohibited:**
  - a. The contestant may not bring extra fittings to the contest.
  - b. The contestant may not provide power tools other than a portable battery screw gun.

